

**Notice of Allowability**

Application No.

09/902,122

Applicant(s)

GILL, HARDAYAL SINGH

Examiner

Christopher R. Magee

Art Unit

2653

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 10/14/2005.
2. ☒ The allowed claim(s) is/are 8,10-13 and 15-17.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

**DETAILED ACTION**

***RESPONSE TO AMENDMENT***

1. The reply filed 10/14/2005 was applied to the following effect: All relevant objections and rejections are withdrawn as being satisfied.

***EXAMINER'S AMENDMENT***

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows: Referring to claim 8, line 7 and claim 13, line 10, "vale" should be -valve--.

***REASONS FOR ALLOWANCE***

3. Claims 8, 10-13 and 15-17 are allowed.

The following is an examiner's statement of reasons for allowance:

This application is for a METHOD AND APPARATUS FOR ACHIEVING PHYSICAL CONNECTION BETWEEN THE FLUX GUIDE AND THE FREE LAYER AND THAT INSULATES THE FLUX GUIDE FROM THE SHIELDS

- **Claims 8 and 13** specify a tunnel valve sensor, which requires:

*“a flux guide deposited over the first insulation layer and onto a portion of a first and second side of the tunnel valve, the flux guide making contact with the tunnel valve at the free layer only on the first and second sides of the tunnel valve with a gap therebetween;*

*a second insulation layer disposed over the flux guide and onto only a portion of the tunnel valve to encapsulate the flux guide and to leave a portion of the tunnel valve exposed;”*

Kobayashi et al. teaches a second insulation layer [17] covering the flux guide and a second shield layer [11] deposited over the second insulation, wherein the flux guide [2] and the free layer [31] are physically connected, and the flux guide is physically isolated from the first and second shield layers by the first insulation layer [col. 8, lines 38-44] to prevent current shunts therefrom [section 0044].

The prior art of record fails to fairly, teach, show or suggest, by either anticipating or rendering obvious, the invention as set forth in the claims of the instant application. Furthermore, a search made does not detect the combined claimed elements as set forth in the pending claims. Additionally, the reasons for allowance of the claims over the prior art of record is believed to be readily clear, self evident and apparent from the claim language set forth in each of claims 8 and 13, when compared and contrasted with the prior art.

More particularly, the instant invention (as set forth in claims 8 and 13) provides for a tunnel valve sensor having a flux guide deposited over the first insulation layer and onto a portion of a first and second side of the tunnel valve, the flux guide making contact with the tunnel valve at the free layer only on the first and second sides of the tunnel valve with a gap therebetween and a second insulation layer disposed over the flux guide and onto only a portion of the tunnel valve to encapsulate the flux guide and to leave a portion of the tunnel valve exposed. None of the cited prior art of record, however, do not disclose such a tunnel valve sensor, as set forth in the manner, function and relationship relative to other claimed structures as prescribed by the independent claims.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


#### ***CONCLUSION***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Magee whose telephone number is (571) 272-7592. The examiner can normally be reached on M-F, 8: 00 am-4: 30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2653

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Christopher R. Magee  
Patent Examiner  
Art Unit 2653

January 5, 2006  
crm

  
GEORGE J. LETSCHER  
PRIMARY EXAMINER